

# COMMUNITY RESILIENCE BUILDING WORKSHOPS- SUMMARY OF FINDINGS DRAFT MAY 22, 2019



SUBMITTED TO

Quincy Planning and Community Development  
Quincy, MA



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# COMMUNITY RESILIENCE BUILDING WORKSHOPS

## OVERVIEW

The City of Quincy is already feeling the impacts of climate change, particularly related to coastal flooding due to storm surge and sea level rise and extreme temperatures. Quincy already has some of the highest repetitive loss claims in the Commonwealth due to flood damage from coastal storms and extreme precipitation. With more than 27 miles of coastline, and three isolated dense residential peninsulas, Quincy is particularly vulnerable to sea level rise and storm surge. Inland, the City is vulnerable as storm water conveyed by numerous waterways frequently overtops during large precipitation events, which results in flooding of adjacent neighborhoods and businesses. The winter of 2018 included weeks of below zero temperatures and record-breaking high tides in January, temperatures 30 degrees above normal in February and three back-to-back Nor'easters in March resulting in some of the worst flooding that Quincy has seen, raising awareness of the community's vulnerability. With climate change, the City anticipates more severe and commonly occurring storms will increase coastal impacts and inland flooding.

To prepare for climate resiliency and begin to consider adaptation strategies, the City has undertaken proactive planning efforts over recent years. In 2015, the City completed a baseline Climate Vulnerability Assessment that examined the effects of sea level rise, increases in the intensity and frequency of storms, and urban heat island effect. With the guidance from adoption of Governor Charlie Baker's Executive Order Number 569 (Establishing an Integrated Climate Strategy for the Commonwealth) in 2016, **Quincy incorporated climate vulnerability assessments into the update of its FEMA Hazard Mitigation Plan (HMP)**. The City is encouraged by the Commonwealth's commitment to help communities continue to address the impacts of climate change through the **Municipal Vulnerability Preparedness (MVP) program**. The Quincy HMP was adopted by the City in April 2019, providing a timely opportunity for municipal department and community outreach via a MVP planning grant that funded Community Resilience Building Workshops.

Robert Stevens, AICP, Principal Planner with the Quincy Planning and Community Development Department led the initiative to complete the MVP process. The City partnered with Tighe & Bond, a state certified MVP Provider and firm who previously assisted with preparation of the 2019 HMP. The City of Quincy drew from members of the Hazard Mitigation Advisory Group to form the Core Team for the MVP. **The Core Team met on February 27 and on March 7, 2019 to determine the workshop goals, identify stake holders and plan for the workshops.**

### The Workshop's central objectives were to:

- Define the top local natural and climate-related hazards of concern;
- Identify existing and future strengths and vulnerabilities of the Community;
- Develop prioritized actions for the Community;
- Identify immediate opportunities to collaboratively advance actions to increase resilience.

Stakeholders were invited to participate in two **Community Resilience Building (CRB) workshops on April 23<sup>rd</sup> and May 14<sup>th</sup>, 2019, at Quincy City Hall**. The CRB workshop methodology is an "anywhere at any scale" format that draws on stakeholder's wealth of information and experiences to foster dialogue about the strengths and vulnerabilities within the City. Workshop participants interacted at both large and small group levels, using an iterative process to gather input, synthesize ideas across groups, and ultimately develop a set of priority resilience and adaptation actions.

**A final listening session was held in City Hall on May 23, 2019.** The major outcomes of the CRB workshops are presented in this summary document.



# COMMUNITY RESILIENCE BUILDING WORKSHOPS

## QUINCY CORE TEAM PLANNING ACTIVITIES

### KICKOFF AND PLANNING MEETINGS



The MVP kickoff meeting, held on February 27, 2019, was coordinated by the Mayor's office to involve key City staff leaders at an early stage in the planning process. This working group of the core team discussed goal setting for the workshop, how to identify and engage stakeholders, and the workshop framework. A follow-up meeting on March 7 was convened with the complete core team and focused on the details to invite the stakeholders and plan two workshops. A summary of the kickoff meeting and sign-in sheet are provided in Appendix A.



Because of the extensive work completed during the HMP process, including interviews of key staff, the Core Team decided it would be most productive to have more inclusive participation for the MVP process. The first workshop was an in-reach event with invitations sent to over 100 City staff and relevant board members. The second workshop was a public outreach event, including invitations to 75 stakeholders impacted by recent flooding and non-profit agencies with a mission of assisting vulnerable populations. Both workshops were held in Quincy City Hall and followed the CRB process with modifications. The natural hazard risks were very well vetted in previous workshops, surveys and other public outreach during the HMP planning process. The top natural hazards were provided based on this previous work. The MVP workshops focused on community asset vulnerabilities and strengths and prioritizing mitigation actions.

### CRB WORKSHOPS



Table discussions at the April MVP workshop

Workshop #1: The April 23<sup>rd</sup> workshop was attended by 32 participants. The workshop included a formal presentation of the MVP process and detail from the Hazard Mitigation Plan. focused on how to integrate climate change planning into other City plans and programs identified in the HMP Capabilities Assessment and exploring priority HMP mitigation actions.

Workshop #2: The May 14<sup>th</sup> workshop was community and non-profit group oriented with 30 participants in attendance. This evening workshop was more interactive, involving an individual mapping exercise, small table and large group discussions. Formal presentations were shortened to allow more time for brainstorming community strengths and weaknesses and potential mitigation actions.

Workshop sign-in sheets, workshop meeting materials, and a map indicating the location of participants from Workshop #2, are provided in Appendix B. Copies of the presentations are included in Appendix Ö.



# TOP HAZARDS AND VULNERABLE AREAS

## NATURAL HAZARD RISKS

The City of Quincy elected to include all 16 hazards from the 2018 State Hazard Mitigation and Climate Adaptation Plan as the basis for evaluating natural hazard risk for the Quincy Hazard Mitigation Plan (HMP) 5-year update. Climate change impacts are integrated into the natural hazard elements where appropriate, consistent with regional climate change information used in the 2018 State Plan.

Climate change projections for Quincy were included in the City's HMP. Projections considered multiple sources and were consistent with data developed by the Northeast Climate Science Center at the University of Massachusetts Amherst for the 2018 State Plan.

Quincy's HMP Advisory Group evaluated the natural hazard risks considering the history of occurrence, the geographic extent of impact, economic impact and the likelihood of future occurrence in the City. The highest ranked natural hazards for Quincy include Coastal and Inland Flooding, Nor'easters, Coastal Erosion, and Severe Winter Weather, all of which may be intensified by climate change.

The MVP Core team felt that, based on the recent evaluation of hazards using best available information, the City should include the HMP highest natural hazard risks for the MVP plan. Participants from the workshops were directed to Chapter 3 of the HMP posted on the City website to learn more about additional natural hazard risks which could impact Quincy. *Include web address here in final report.*



## AREAS OF CONCERN

Over 20% of Quincy's developed land is within a flood hazard area. Areas of concern for coastal flooding are based on proximity to the coast and low-lying properties. This includes 66% of parcels within the Merrymount/ Blacks Creek planning area and approximately 25% of parcels within the Houghs Neck/ Germantown and Squantum Point Marina Bay planning areas. In the Furnace Brook North area, 17% of properties are vulnerable to inland flooding. Appendix C includes the Community Asset Mapping for each planning area highlighting both the assets and areas of flooding.



## SPECIFIC VULNERABLE AREAS AND ATTRIBUTES

**Merrymount/ Blacks Creek Neighborhoods:** Blacks Creek (drainage and marsh preservation), Seawalls (height and condition), Massachusetts Water Resource Authority (MWRA), Heritage Place (state Street), Beachwood Knoll, North Quincy Station (tide gates), Business Emergency Plan (North Quincy Businesses, Mass Health, Boston Scientific, Fed Ex), Emergency Response Plan (mock event and debris removal). Pump stations (need generators), Emergency Management



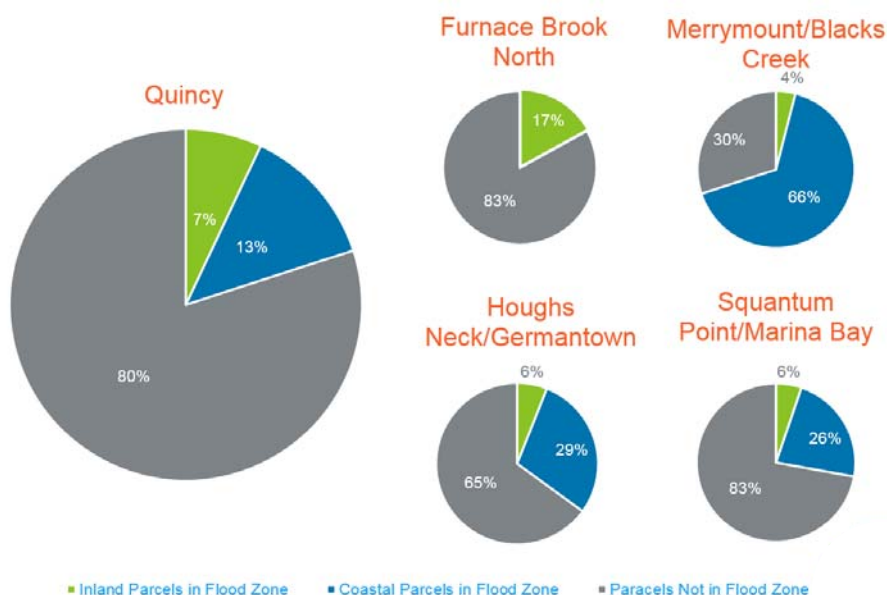
Center (protection of assets and need for ongoing education about emergency management planning), MBTA bus barn (prevention of oil spills and maintaining fleet for transportation to shelters)

**Houghs Neck/ Germantown Neighborhoods:** Sea Street (sea wall, pump stations, check valves and access/evacuation routes), Palmer Street (road elevation and seawalls), Quincy Yacht Club/Maritime Center Dock (emergency access), Tern Road (access), Spring Street (tide gates), Broad Meadow Marsh (school flood protection, drainage improvements), tidal flats (clamming).

**Squantum Point/ Marina Bay Neighborhoods:** Bus Barn, Kennedy Center, Squantum Point Ferry, Department of Conservation and Recreation headwall at Squantum Point Park (electrical supply), Massachusetts Water Resource Authority (MWRA) pump stations, Ocean Street, Quincy Shore Drive (senior housing and mosquito control), Commander Shea Boulevard (culvert), (North Quincy Businesses, Mass Health, Boston Scientific, Fed Ex), Squantum Causeway and Pier.

**Furnace Brook North Neighborhoods:** Fire Department (maintenance and staffing), Compass Urgent Care, Pump station (generators), Bernazzani School (Shelters, pump and sub-station), Beechwood Knoll School (shelter), Interfaith Social Services (funding, food bank, thrift store, records), Jack & Jill Day Care, Furnace Brook Parkway (alternate routes, mosquito control), Home Depot and Curry Hardware (emergency supplies).

“Quincy ranks 5<sup>th</sup> highest of all cities and towns in Massachusetts for Repetitive Loss Claims. Between 1979-2017, 540 claims were submitted for 174 Repetitive Loss properties and 73 claims were submitted for 11 Severe Repetitive Loss properties.”



Summary of Existing Flood Risk % of Properties





## CURRENT CONCERNS AND CHALLENGES PRESENTED BY HAZARDS AND CLIMATE CHANGE

Workshops participants identified areas or assets that were important to the City and those that were particularly vulnerable as a mapping exercise. Strengths and vulnerabilities overlapped along the shoreline and downtown area adjacent to Furnace Brook.



Workshop attendees identified 85 community assets that were either vulnerable to the impacts of climate change or strengths to the City of Quincy. Some of the most frequently identified community assets were access to transportation corridors during severe weather events, access to emergency and medical services, fire departments, schools, pump stations and wastewater treatment, historic properties, pharmacies, grocery stores and areas of commerce. Attendees were also concerned with long term access to public waterfront and parks, and the care of vulnerable populations during and following severe weather events.

Commonly identified mitigation strategies included maintenance and improvements to the storm drain system, ongoing tide gate and seawall maintenance, elevating properties, analysis and construction of flood water pump stations, and an emergency notification system providing residents with early warning of predicted severe weather events. The completed CRB matrix is provided in Appendix D.



## SPECIFIC CATEGORIES OF CONCERNS AND CHALLENGES

### INFRASTRUCTURAL

The workshop participants identified the following infrastructural concerns:

- City-wide transportation corridor access
- Specific Street and Bridges
- Squantum Point Ferry Pier
- MBTA Stations
- National Grid Substations
- Adequate light and power for evacuation routes
- City-wide Emergency Services, including fire, police, urgent care and national guard
- Coastal and inland flood protection, including tide gates, seawalls, stormwater pumps, and drainage network



Table discussions at the May MVP workshop



## SOCIETAL

The following Societal challenges or concerns were raised at the workshops:

- Schools and child care centers located in flood prone areas
- Libraries
- Social Services for Senior and other vulnerable populations
- Low Income Housing
- Homeless Shelters
- Historic Properties
- Quincy Yacht Club



## ENVIRONMENTAL

Environmental concerns were identified across the City by the participants including the following locations:

- Coastal marsh areas
- Public waterfront (beaches and ponds)
- Parks and Golf Course
- Wetlands
- Furnace Brook Parkway

## ECONOMY

Economic concerns or challenges discussed at the workshop include:

- Pharmacies
- Grocery Stores
- Gas Stations
- Hardware and Dry Goods
- Emergency Towing
- Major Employers
- Shell fishing



Table discussions at the May MVP workshop





## CURRENT STRENGTHS AND ASSETS

The City of Quincy has been proactive in preparing for the impacts of climate change in recent years. Since 2015, the City has engaged in local and regional resiliency planning efforts, hired a full time Emergency Management Director, updated its Hazard Mitigation Plan, and is currently in the process of updating its Open Space and Recreation Plan. The City's has successfully obtained a number of state and federal grants to improve infrastructure throughout the City including:

- Seawall Improvements for Houghs Neck and Adams Shore (EEA Dam and Seawall Repair Funding)
- Broad Meadow Marsh Restoration (DER Grant)
- Furnace Brook Restoration (ACOE Grant)
- Stormwater Pumping Station (FEMA Grant)

The Quincy Capital Improvement Plan includes many projects and initiatives that support a Resilient Quincy. The HMP Mitigation Strategy and the MVP CRB selection of top recommendations will help the City continue to prioritize projects and seek funding to implement these important projects.

## TOP RECOMMENDATIONS TO IMPROVE RESILIENCY IN THE CITY OF QUINCY

*We look forward to the City of Quincy's input on the following top recommendations for the final report.*

All Mitigation Projects listed in the HMP Mitigation Strategy and identified in the CRB workshops are a high proiourity for the city. The list prepared below is subject to change based on evolving conditions in the City.

### HIGHEST PRIORITY

- Emergency Communications System
- Emergency Power Generators
- Stormwater Pumping Stations
- Seawall Construction
- Building Inspection Records System
- Tide Gate Construction and Management Plan
- Public Education and Post Disaster Support

### MODERATE PRIORITY

- Drainage Improvements
- Hurricane Barrier Evaluation
- Tree Removal Equipment
- Slope Protection and Infrastructure Hardening
- Sewer System Modernizations
- Sewer System Interceptor Relief

### LOWER PRIORITY

- Coastal Buffer Maintenance
- Salt Marsh Restoration
- Seismic Impact Evaluation and Gas Utility Study
- O'Rourke Field Conversion

# CRB WORKSHOP PARTICIPANTS

## WORKSHOP #1 ATTENDANCE

Workshop Host: Robert Stevens AICP, Quincy Planning and Community Development

Workshop Facilitators: Gabrielle Belfit, CFM and Janet Moonan, PE, Tighe & Bond

Table Facilitators: James Scribi and Joe King (Quincy Planning), Taylor Walters (NepRWA) Colleen O'Brien and Janet Moonan (Tighe & Bond)

### Workshop #1: April 23, 2019, Municipal Staff and Environmental Agencies Focus Group

Name	Affiliation	Name	Affiliation
Chris Walker*	Mayor's Office	James Scribi	Quincy Planning
James Fatseas	Quincy Planning	Joseph King	Quincy Planning
Robert Stevens*	Quincy Planning	Senator John Keenan	Norfolk and Plymouth
Paul Costello*	Engineering Department	Peter Fifield	Resident
Cheung Tsang	Engineering Department	Keith Johnson	Haley & Aldrich
John Sullivan	Dept of Public Works	John T. Brennon	Quincy Conservation Commission
Chris Cassani*	TPAL	William Keener	Quincy Conservation Commission
Allie Ruel	TPAL	Tom Russo	Woodard & Curran
Ally Sleiman*	Director Emergency Management	Holli Roche	Woodard & Curran
Paul Hines*	Public Buildings	Joe King	Quincy Planning
Gary Cunniff	Public Buildings	Sheldon Bennett	Quincy Stormwater Advisory Comm
Shelly Dein*	Public Buildings	David Murphy*	Tighe & Bond
Cindy DeCristofaro	Health Department	Faye Strigler	Quincy Climate Action Network (QCAN)
Ruth Jones	Health Department	Ida DelVecchio	QCAN
Capt. Richard McCusker	Police Department	Jane Madge	Community Interest Today
Officer Robert Bell	Police Department	Joe Shea	Woodard & Curran
Officer James Curran	Police Department	Taylor Walters	Neponset River Watershed Association (NepRWA)

\*MVP Core Team Members



## WORKSHOP #2 ATTENDANCE

Workshop Host: Robert Stevens AICP, Quincy Planning and Community Development

Workshop Facilitator: Gabrielle Belfit, CFM, Tighe & Bond

Table Facilitators: Robert Stevens and Joe King (Quincy Planning), Taylor Walters (NepRWA) Colleen O'Brien and Gabrielle Belfit (Tighe & Bond)

### Workshop #2: May 14, 2019, Community Members and Non-Profit Focus Groups

Name	Affiliation	Name	Affiliation
John T. Brennon	Quincy Conservation Commission	Bernie Rines	Resident
Ida DeVecchio	Quincy Climate Action Network (QCAN)	Rich Rines	Resident
Faye Strigler	QCAN	Cindy Roche-Cotter	Resident
Will Isenberg	QCAN	Mike Cotter	Resident
Kory Eng	QCAN	Sal Balsamo	Resident
Jon Lanham	Father Bills	Margaret Branschutsky	Resident
Dean Arnold	The Dean of Solar	Colin Barry	Resident
Chris Hirsch	NCPRWA	Kacey Bongarzone	Resident
John Risitano	Stormwater Action Committee (SWAC)	Jonathan Lippert	Resident
James Scribi	Quincy Planning	Ruth Kam	Resident
Robert Stevens*	Quincy Planning	Kenneth Kam	Resident
Joseph King	Quincy Planning	Jonathan Boie	Resident
Shelly Dein*	City of Quincy	David Longuno	NHS
Claire Brennan	Germantown Neighborhood Center/SSYMCA	Rob Corley	NHS
Tim Cahill	Quincy Chamber of Commerce	Tim Doherty	NHS
Keith Johnson	Haley & Aldrich	Donna Ackerman	NHS
Amy O'Brien	Manet CHC	Taylor Walters	NepRWA

\*MVP Core Team Members

# CRB WORKSHOP PROJECT TEAM

The following individuals provided invaluable assistance with coordination and implementation of the workshops and listening session.

## MVP Core Team

Name	Department	Role
Robert Stevens	Community and Planning Department	Project Coordinator/ Core Team Member/ Working Group
Chris Walker	Mayor's Office	Core Team Member/ Working Group
Al Grazioso	Department of Public Works	Core Team Member/ Working Group
Paul Costello	Department of Public Works	Core Team Member/ Working Group
Dave C. Murphy	Parks and Grounds Department	Core Team Member
Shelly Dein	Sustainability, Public Buildings Department	Core Team Member
Ally Sleiman	Office of Emergency Management	Core Team Member
Lt. Robert Gillan	Marine Unit, Police Department	Core Team Member
Chris Cassani	Traffic, Parking, Alarm and Lighting	Core Team Member
Gabrielle Belfit	Tighe & Bond	MVP Lead Presenter/ Facilitator
Janet Moonan	Tighe & Bond	Lead Facilitator/ Presenter
Colleen O'Brien	Tighe & Bond	Lead Table Facilitator/ Logistics Coordinator

# ACKNOWLEDGEMENTS

Many thanks to Rob Stevens for serving as the local Project Coordinator for both the 2019 Quincy Hazard Mitigation Plan 5-year update and the MVP Planning Process. Thanks to the Quincy Mayors Office for supporting this project. A special thanks to all MVP Core Team members and everyone who participated in the CRM workshop as presenters, facilitators, scribes and stakeholders. Thanks to the Quincy City Hall Staff for providing a great meeting space in City Hall for both workshops and the listening session.

Funding for the CRB workshop was provided through a Massachusetts Executive Office of Energy and Environmental Affairs Municipal Vulnerability Planning Grant.

# REPORT CITATION

Tighe & Bond (2019). Community Resilience Building Workshop Summary of Findings, City of Quincy, Tighe & Bond, Inc. Quincy, Massachusetts.




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## APPENDIX D

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Community Resilience Building Risk Matrix				www.CommunityResilienceBuilding.org									
<b>H-M-L</b> priority for action over the <b>S</b> hort or <b>L</b> ong term (and <b>O</b> ngoing) <b>V</b> = Vulnerability <b>S</b> = Strength				Quincy's Top Priority Hazards									
				Inland Flooding				Coastal Flooding & Erosion		Nor'easter		Severe Winter Weather	
H - M - L		Short Long Ongoing											
Assets		Location	Ownership (City, State, Federal, Private)	V or S									
		Complete for New Assets Only											
Infrastructural													
Road Access/Transportation Corridors		Citywide	City/State	V	Improve access during emergencies and severe weather events; Establish alternative routes and emergency alternative means of transportation; Increase culvert size at main corridors throughout City						H	O/S	
					Improve Stormwater Management		Install Pump Stations						
East Squantum Street		East Squantum Street	City	V		Ongoing maintenance and repairs to seawall; Ongoing clearing of debris from road						M	L
Sea Street Access		Sea Street	City	V	Backup Generator; MWRA Sewer Easement Access, develop hydraulic model, Sea Street Seawall Rehab and Enhancement for greater protection						H	S	
Terne Road Access		Terne Road	City	V		Analysis for Construction of Pump Station; Assessment of Tide gates					H	S	
Quincy Shore Drive		Quincy Shore Drive	DCR	V/S	Storm Drain Maintenance		Salt Marsh restoration; Ongoing tide gate repair and maintenance; ongoing seawall repair and maintenance; Increase seawall height; Blacks Creek Tide Gate project; Sand Removal				H	O	
					Alternative Route Planning; Ongoing maintenance and clearing of debris along road; Allocate funding to maintenance and improvements of Quincy Shore Drive; Conduct Analysis of Local Code and Feasibility study for elevating residential homes on Quincy Shore Drive; Mosquito spraying; control of invasive species; Sand Removal;								
Post Island Road Neighborhood		Post Island Road	City/Private	V/S	Emergency Backup Generators; Georges Island Seawall Analysis; Pump Station Analysis; Construct new seawall; Evaluate living shoreline; Increase capacity of culverts on Sea Street; Perform dike assessment						H/M	O/S	
Neponset Bridge		Neponset Ave	City	V		Salt Marsh Restoration; Sagamore Creek Tide Gate; Division Street Pump Station Repairs					H	L	
Squantum Point Ferry Pier		552 Victory Road	City	V/S		Breakwater					L	O	
Squantum Isolation		Squantum Neighborhood	City/Private	V	Increase culvert size						H	O	
MBTA Stations & Access		Citywide	State	S	Improve Stormwater management and Construction of Stormwater Pumping Stations						H	L	
MBTA Bus Barn		Hancock Street	State	V/S	Maintain up to date SPCC Plan; Maintain fleet for use in case of emergencies						M	O	
					Retrofit Bus Barn for flooding and elevate roads			Retrofit site to sustain severe winter weather					
Light & Power for Evacuation Routes		Citywide	N/A	V	Provide emergency power to light evacuation routes						H	S	
Access to Emergency Services		Citywide	N/A	V	Maintain Comprehensive Emergency Management Plan; Provide additional Public Education; Establish an Emergency Notification and Warning System to Resident's Cell Phones; Improve Stormwater Management						H	O	
Emergency Management Office		1 Merrymount Pkway	City	S	Maintain Equipment in case of emergency; Generator upgrades; Maintenance of Vehicles/Fleet; Site Floodproofing						H	O/S	
Quincy Fire Dept - Engine 5		182 Copeland Street	City	S	Maintenance of Equipment; Adequate Staffing; Ongoing Public Education and Emergency Alert System						H	O	

Community Resilience Building Risk Matrix				 www.CommunityResilienceBuilding.org					
<b>H-M-L</b> priority for action over the <b>S</b> hort or <b>L</b> ong term (and <b>O</b> ngoing) <b>V</b> = Vulnerability <b>S</b> = Strength				Quincy's Top Priority Hazards				Priority	Time
				Inland Flooding	Coastal Flooding & Erosion	Nor'easter	Severe Winter Weather	<b>H - M - L</b>	<b>S</b> hort <b>L</b> ong <b>O</b> ngoing
Assets	Location	Ownership (City, State, Federal, Private)	V or S						
Complete for New Assets Only									
Infrastructural (continued)									
Germantown Fire Station	126 Doane Street	City	V	Provide medical services in emergencies at fire stations; Relocate fire station to higher ground; Enhance seawall along Palmier Street				H	L
Compass Urgent Care Center	54 Miller Street	Private	S	Miller/Cross/Furnace Stormwater Control Station				M	O
National Guard Armory	1000 Hancock Street	Federal	V/S	Maintain and protect Fleet for use during emergency; Move fleet to high ground before possible flooding				H	O
Spring Street Tide gate	Spring Street	City	V		Ongoing tide gate management; Inspection Protocol; Automation of tide gate			M	O
Tide Gates	Citywide	City	V		Alert/Notification System when Tide gates are in need of maintenance or repair; Replace tide gates			H	L
Greenburg Bridge Tide Gate	Phillip Greenberg Bridge	City	S		Replace Tide Gate			M	S
Upper Black Creek Culvert	Blacks Creek Neighborhood	City	S	Increase capacity of culverts; Replace tide gates in Blacks Creek Area				H	S
Seawalls	Citywide	City/Private	V	Increase height of seawalls and improve drainage on opposite side of seawall				H	L
Sewer Pump Station	Fenno Street	City	V	Rehabilitate pump station; Conduct ongoing maintenance; Equip with Emergency Backup Generator			H	O	
				Retrofit Pump station for flooding					
Division Street Pump Station	Citywide	City	S	Repairs to Pump Station; Equip with Emergency Backup Generator				M	L
Nut Island Treatment Plant	Nut Island	State	V	Coordinate with MWRA to ensure preparedness and functionality;				H	L
Storm Drain System	Citywide	City	V	Sewer/Storm Drain separation; Maintenance of outfalls and catch basins; Regulations requiring stormwater retention for new developments				H	L
Copeland Street National Grid Substation	278 Copeland Street	Private	V	Back Up Generator				H	O
				Miller/Cross/Furnace Stormwater Control Station					
Brewers Corner	Brewers Corner Neighborhood	City/State/Fed	V	Stormwater Drainage Improvements				H	L



Community Resilience Building Risk Matrix				www.CommunityResilienceBuilding.org						
<b>H-M-L</b> priority for action over the <b>S</b> hort or <b>L</b> ong term (and <b>O</b> ngoing) <b>V</b> = Vulnerability <b>S</b> = Strength					Quincy's Top Priority Hazards				Priority	Time
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Assets	Location	Ownership (City, State, Federal, Private)	V or S							
Complete for New Assets Only										
Societal										
Jack n Jill Daycare	39 Station Street	Private	V	Pre-closure and evacuation prior to severe storms or emergencies				H	S	
Schools - Citywide	City-wide	City	V/S	Emergency Response Planning; Maintain Comprehensive Emergency Management Plan; Emergency Notification/Communication System				H	O	
Bernazzi Elementary School	701 Furnace Brook Pkwy	City	V/S	Maintenance of stream bed and removing debris	Flood Barrier			H	O	
Beachwood Knoll School	225 Fenno Street	City	V/S	Storm Drain Maintenance	Blacks Creek Tide Gate Project; Marsh Preservation and Restoration; Invasive Species Management			H	O	
Broadmeadow Elementary School	120 Broad Meadow Road	City	V	Emergency Response Planning; Maintain Comprehensive Emergency Management Plan; Ensure fully functional as an emergency shelter; Equip with backup emergency generator; Emergency Notification/Communication System; Mosquito prevention; Elevate electrical system				H	S	
North Quincy High School	316 Hancock Street	City	V	Emergency Response Planning; Maintain Comprehensive Emergency Management Plan; Ensure fully functional as an emergency shelter; Equip with backup emergency generator; Emergency Notification/Communication System				H	O	
Eastern Nazarene College	23 East Elm Ave	Private	V/S	Educate Public and Residents and provide with Emergency Warning or Notification System; Ongoing seawall maintenance				M	O	
Quincy Libraries	Citywide	City	V	Improve Stormwater Management				H	O	
Historic Properties	Citywide	City/State	V/S	Protect historic properties; expand stream beds adjacent to historic properties				H	L	
Interfaith Social Services	105 Adams Street	Private	S	Maintain food supplies in case of emergencies; Backup Emergency Generator				M	O	
Kennedy Center (Quincy Council on Aging)	440 E Squantum Street	City	V/S	Retrofit existing building to withstand flooding and Nor'easters				H	O	
Low Income Housing	Citywide	City	V	Help access services & federal support funds after emergency/severe weather event; Train City staff on how to respond and direct to services; improve stormwater drainage				H	L/S	
Homeless Shelters	Citywide	City/Private	V	Assist vulnerable populations during emergencies and severe weather events; Help access services & federal support funds after emergency/severe weather event; Train City staff on how to respond and direct to services				M	O	
Vulnerable Populations	Citywide	N/A	V	Develop and maintain a list of vulnerable residents; Help access services & federal support funds after emergency/severe weather event; Train City staff on how to respond and direct to services				H/M	I/S	
Quincy Yacht Club	1310 Sea Street	Private	V		Rebuild Sea Ave Seawall and floodproof Yacht Club			L	L	

Community Resilience Building Risk Matrix				www.CommunityResilienceBuilding.org						
<div><div>H-M-L</div><div>priority for action over the</div><div>Short or Long term (and Ongoing)</div><div>V = Vulnerability S = Strength</div></div>				Quincy's Top Priority Hazards					Priority	Time
				Inland Flooding	Coastal Flooding & Erosion	Nor'easter	Severe Winter Weather	H - M - L	Short Long Ongoing	
Assets	Location	Ownership (City, State, Federal, Private)	V or S							
	Complete for New Assets Only									
Environmental										
Terne Road Salt Marsh	Terne Road	City	V/S		Tide gate enhancement; Seawall Rehab on Sea Street; Marsh expansion/restoration			H	S	
Squantum Marshes	Squantum Neighborhood	City	V/S		Salt Marsh Restoration; Use Restrictions; Maintain buffer zone around marshes; Tide gate enhancement			M/H	L	
Princess Eve Marsh	Princess Eve Drive	City	V/S	Increase capacity of culverts; Replace Tide Gates in Princess Eve Marsh; Marsh expansion/restoration				H	S/L	
Post Island Marsh	Post Island Road/Sea Street	City	V/S	Install pump stations; Increase capacity of culverts				H	O/L	
					Replace tide gates in Post Island Marsh; Marsh expansion/restoration					
Public Waterfront & Parks	Citywide	City	V/S	Improve drainage	Enhance seawall height and depth; Prevent coastal erosion; Maintain coastal banks;			L	L	
Wollaston Beach	Quincy Shore Drive	City	S	Improve Stormwater Management				M	L	
Orchid Beach	Bayside Road	City	V/S		Salt Marsh Restoration; Use Restrictions			L	O	
Norton Road Beach	Norton Road	City	V		Seawall Rehab on Sea Street			H	S	
Dickinson Waterfront	Victory Road	City/Private	V/S		Salt Marsh Restoration; Use Restrictions			L	O	
Butlers Pond	Butler Road	City	V/S	Tree Filter boxes at catch basins; Dredge pond; Control invasive species				H	O	
Wetlands	Citywide	City	V/S	Cleanup of Oil from floating booms in wetlands				H	S	
Furnace Brook Pkwy	Furnace Brook Pkwy	City	V	Mosquito Control; Establish Alternative Routes				H	O	
				Maintenance of Stream Bed	Blacks Creek Tide Gate Project					
Furnace Brook Golf Course	20 Reservoir Road	Private	S	Back up Generator; Maintain food and supplies in case of emergency				L	S	

Community Resilience Building Risk Matrix				 www.CommunityResilienceBuilding.org					
<b>H-M-L</b> priority for action over the <b>S</b> hort or <b>L</b> ong term (and <b>O</b> ngoing) <b>V</b> = Vulnerability <b>S</b> = Strength				Quincy's Top Priority Hazards				Priority	Time
				Inland Flooding	Coastal Flooding & Erosion	Nor'easter	Severe Winter Weather	<b>H - M - L</b>	<b>Short Long Ongoing</b>
Assets	Location	Ownership (City, State, Federal, Private)	V or S						
	Complete for New Assets Only								
Economy									
Pharmacies	Citywide	Private	V/S	Provide assistance to Pharmacies to allow them to stay open during severe weather events; Provide traveling staff to deliver/administer medications				M	O/S
				Improve Stormwater Management;					
Grocery Stores	Citywide	Private	V	Improve Stormwater Management				M	O
Gas Stations	Citywide	Private	V	Backup Emergency Generators				H	S
Curry Hardware	370 Copeland Street	Private	S	Establish relationship with City to supply materials and support in case of emergency				M	O
Home Depot	465 Centre Street	Private	S	Establish relationship with City to supply materials and support in case of emergency				M	O
American Towing	500 Adams Street	Private	S	Establish relationship with City for support in case of emergency				M	O
Personal Property	Citywide	Private	V	Homeowner education; Support Contact List and FEMA Claim Assistance; FEMA Advocacy for Homeowners; Increase capacity of culverts, replace tide gates city wide				H	O/S/L
State Street Corporation	State Street	Private	V/S	Establish emergency plan for businesses; Relocate businesses and development				H/M	O
Boston Scientific	500 Commander Shead Blvd	Private	V		Ongoing maintenance and repairs to seawall			M	L
Marina Bay	Marina Bay Development	Private	V/S		Elevate Seaport Drive			M	L
The Strand Area	The Strand Area	Private	S	Increase capacity of Pump Stations, improve stormwater management				M	O
Wollaston Yacht Club	692 Quincy Shore Drive	Private	V	Maintain sewer & water services to Wollaston Yacht Club to prevent break during severe weather				M	O
Soft Shell Clamming	Citywide	N/A	S	Increase resiliency of natural resource area and allocate funding to protecting and preserving these areas and industries				L	O